

Claims

1. A screening tool for an agent for treating renal failure, which is a polypeptide consisting of the amino acid sequence represented by SEQ ID NO:2, or a polypeptide comprising an amino acid sequence represented by SEQ ID NO:2 in which from 1 to 10 amino acids are deleted, substituted and/or inserted and which is capable of activating CTGF promoter.

2. The screening tool for an agent for treating renal failure, which is a cell expressing the polypeptide described in claim 1.

3. A method for detecting whether or not a test compound is an inverse agonist, which comprises

a step of allowing the cell described in claim 2 co-expressing a chimeric G protein in which C-terminal amino acid sequence is the amino acid sequence represented by SEQ ID NO:16, and which is a chimera of a partial polypeptide having promoting activity of phospholipase C activity of a phospholipase C activity-promoting G protein with a partial polypeptide having a Gi receptor coupling activity, to contact with a test compound, and

a step of analyzing a change in activity of the polypeptide described in claim 1 in said cell.

4. A method for screening an agent for treating renal failure, which comprises

a step of allowing the cell described in claim 2 co-expressing a chimeric G-protein in which C-terminal amino acid sequence is the amino acid sequence represented by SEQ ID NO:16, and which is a chimera of a partial polypeptide having promoting activity of phospholipase C activity of a phospholipase C activity-promoting G protein with a partial polypeptide having a Gi receptor coupling activity, to contact with a test compound, and

a step of analyzing a change in activity of the polypeptide described in claim 1 in said cell.

5. A method for screening a substance inhibiting expression of CTGF, which comprises

a step of allowing the cell described in claim 2 expressing the DNA of SEQ ID NO:13 having a reporter gene in downstream to contact with a test compound, and

a step of measuring the reporter activity in said cell.

6. The screening method according to claim 5, wherein the substance inhibiting expression of CTGF is an agent for treating renal failure.

7. A method for screening an agent for treating renal

failure, which comprises

a step of allowing the cell described in claim 2 expressing the DNA of SEQ ID NO:14 having a reporter gene in downstream to contact with a test compound, and

a step of measuring the reporter activity in said cell.

8. A pharmaceutical composition for treating renal failure, which comprises an inverse agonist for the polypeptide described in claim 1.

9. A pharmaceutical composition for treating renal failure, which comprises a substance obtainable by the method according to one of claim 4 to claim 7.

10. A method for producing a pharmaceutical composition for treating renal failure, which comprises
a step of screening using the method according to one of claim 4 to claim 7, and

a step of preparing a pharmaceutical composition using a substance obtained by said screening.

11. A method for treating renal failure, which comprises administering an effective amount of an inverse agonist for the polypeptide described in claim 1 and/or a substance obtainable by the method according to one of claim

4 to claim 7 to a subject in need of the treatment of renal failure.

12. Use of an inverse agonist for the polypeptide described in claim 1 and/or a substance obtainable by the method according to one of claim 4 to claim 7 for the manufacture of a pharmaceutical composition for treating renal failure.